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15 September 1966

TYPE II SYSTEM CONTRACT O-TM-483

Subject:

Isolator/Stabilizer Unit

Reference:

In-House Investigation

PROBLEM:

Improved technology and equipment experience indicates that the Type II Isolator/Stabilizer system could be improved.

DISCUSSION:

While the present Type II Isolator/Stabilizer system provides a configuration platform with minimum stability characteristics, there is need for improvement. Testing instrumentation reveals oscillations and mechanical ringing frequencies in the structure which could be detrimental to the system output. More detailed evaluation indicates that further investigation and possible modification is required in the following areas:

- 1. Structural reinforcement.
- 2. Improvement of torque amplifiers and electronic module.
- 3. Possible replacement of present gyro assemblies.

CONCLUSION:

Type II output should be improved if the Isolator/Stabilizer system were modified. The required effort should be divided into two tasks which could be completed separately.

Task I - Structural Reinforcement Modification
Task II - Electronic Improvement and Gyro Replacement

RECOMMENDATIONS:

It is recommended that Task I be approved. Engineering effort and materials would be supplied from in-house while installation and testing could be completed in the field.

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Task II should be deferred pending the evaluation of Task I and should then only be considered if the configuration could be returned to the home plant for modification which might require a minimum of 45 days.

R.O.M. TIME-COST ESTIMATE:

Task I - 60 to 90 days

Task II - 10 to 16 months

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